

**ABSTRACT**

The present invention relates to methods and compositions for treating subterranean formations. More particularly, the present invention relates to polymersomes, viscosifying agents that comprise polymersomes, and associated methods of use. In some embodiments, the present invention discloses methods of treating a section of a subterranean formation that comprises the steps of providing a viscosified treatment fluid that comprises an aqueous-based component, and a viscosifying agent that comprises a polymersome; and treating the section of the subterranean formation. In other embodiments, the present invention discloses methods of viscosifying a treatment fluid, suspending particulates in a treatment fluid, fracturing a subterranean formation, providing sand control in a section of a subterranean formation, and encapsulating treatment fluid additives. In yet other embodiments, the present invention discloses viscosified treatment fluids, fracturing fluids, gravel pack fluids, polymersomes, and encapsulated treatment fluid additives.